

a marked up version has not been changed relative to the immediate prior version, except that marked up versions are not being supplied for any added claim or canceled claim.

✓
Cancel claim 7.

~~SUB D1 7~~ 8. The method of claim 16 wherein the etching comprises plasma etching.

C1 9. The method of claim 16 wherein the etching comprises magnetically enhanced plasma etching.

10. The method of claim 16 wherein the etching comprises substantially anisotropic etching of the silicon nitride comprising layer.

~~SUB D2 7~~ 14. The method of claim 16 wherein the etching chemistry comprises at least two fluorocarbons.

C2 15. The method of claim 16 wherein the etching chemistry comprises at least three fluorocarbons.

~~SUB D2~~ 16. (Thrice Amended) A method of forming integrated circuitry comprising:

~~C2~~ forming a layer comprising silicon nitride over a semiconductor substrate;
forming a patterned photoresist comprising masking layer over the silicon nitride layer, the patterned masking layer comprising mask openings therethrough;
and

etching the silicon nitride comprising layer through the mask openings substantially selectively to the photoresist comprising layer using an etching chemistry consisting essentially of reactive components of ammonia and at least one fluorocarbon under etching conditions effective to substantially anisotropically etch the silicon nitride comprising layer, the etching chemistry comprising a volumetric ratio of all fluorocarbon to the ammonia of from 40:1 to 20:1 and providing increased selectivity to the photoresist comprising masking layer than would otherwise occur using identical etching chemistry and identical etching conditions without any ammonia.

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Cancel claim 17.

~~SUB D3~~ 19. The method of claim 16 wherein the fluorocarbon comprises a hydrofluorocarbon.

SUB 7
D3
20. (Thrice Amended) A method of forming integrated circuitry comprising:

forming a layer comprising silicon nitride over a semiconductor substrate;

forming a patterned photoresist comprising masking layer over the silicon

C 3
Cont.
nitride layer, the patterned masking layer comprising mask openings therethrough; and

etching the silicon nitride comprising layer through the mask openings substantially selectively to the photoresist comprising layer using an etching chemistry consisting essentially of reactive components of ammonia and at least one fluorocarbon under etching conditions effective to substantially anisotropically etch the silicon nitride comprising layer, the etching chemistry comprising a volumetric ratio of all fluorocarbon to the ammonia of from 40:1 to 20:1 and providing increased selectivity to the photoresist comprising masking layer than would otherwise occur using identical etching chemistry and identical etching conditions without any ammonia, wherein the fluorocarbon is at least one member selected from the group consisting of C_4F_6 and C_5F_8 .

21. The method of claim 16 wherein the silicon nitride comprising layer consists essentially of silicon nitride.

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Cancel claim 46.

~~SUB
D4~~ 7 47. The method of claim 16 wherein the photoresist comprises 193 nanometer photoresist.

C4
cont. 48. The method of claim 16 comprising introducing the ammonia and fluorocarbon successively into a reaction chamber in which the substrate is received during the etching.

49. The method of claim 16 wherein the integrated circuitry forming comprises forming shallow trench isolation within the semiconductor substrate, the photoresist comprising masking layer being patterned effective to form a plurality of shallow trench mask openings therethrough.

50. The method of claim 16 wherein the integrated circuitry forming comprises forming shallow trench isolation within the semiconductor substrate, the silicon nitride comprising layer being formed over a bulk semiconductor substrate, and the photoresist comprising masking layer being patterned effective to form a plurality of shallow trench mask openings therethrough.

51. The method of claim 20 wherein the fluorocarbon comprises C_4F_6 .

52. The method of claim 20 wherein the fluorocarbon comprises C_5F_8 .

~~D~~
53. The method of claim 20 wherein the etching chemistry consists essentially of reactive components of the ammonia and the at least one fluorocarbon.

C4
SUB D5 7
54. The method of claim 20 wherein the photoresist comprises 193 nanometer photoresist.

55. The method of claim 20 comprising introducing the ammonia and fluorocarbon successively into a reaction chamber in which the substrate is received during the etching.

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Cancel claim 56.

SUB D6 7
57. The method of claim 20 wherein the etching comprises plasma etching.

C5
58. The method of claim 20 wherein the etching comprises magnetically enhanced plasma etching.

59. The method of claim 20 wherein the etching comprises substantially anisotropic etching of the silicon nitride comprising layer.

~~SUB D6~~ 60. The method of claim 20 wherein the etching chemistry comprises at least two fluorocarbons.

61. The method of claim 20 wherein the etching chemistry comprises at least three fluorocarbons.

✓
Cancel claim 62.

~~SUB D7~~ 63. The method of claim 20 wherein the integrated circuitry forming comprises forming shallow trench isolation within the semiconductor substrate, the photoresist comprising masking layer being patterned effective to form a plurality of shallow trench mask openings therethrough.

64. The method of claim 20 wherein the integrated circuitry forming comprises forming shallow trench isolation within the semiconductor substrate, the silicon nitride comprising layer being formed over a bulk semiconductor substrate, and the photoresist comprising masking layer being patterned effective to form a plurality of shallow trench mask openings therethrough.